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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/928,459	08/14/2001	Ulf W. Naatz	ANA-211	6458
7590 12/31/2003				
MICHAEL M. DE ANGELI, P.C. ATTORNEY AT LAW 60 INTREPID LANE JAMESTOWN, RI 02835			EXAMINER SIEFKE, SAMUEL P	
			ART UNIT 1743	PAPER NUMBER

DATE MAILED: 12/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/928,459	Applicant(s) NAATZ ET AL.	
	Examiner Samuel P Siefke	Art Unit 1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on ____.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-33 is/are pending in the application.

4a) Of the above claim(s) 1-17 and 28-33 is/are withdrawn from consideration.

5) ☐ Claim(s) ____ is/are allowed.

6) ☒ Claim(s) 18-27 is/are rejected.

7) ☐ Claim(s) ____ is/are objected to.

8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 a) ☐ The translation of the foreign language provisional application has been received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.

4) ☐ Interview Summary (PTO-413) Paper No(s). ____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other:

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-17, drawn to a system for measuring total organic carbon, classified in class 422, subclass 80.
- II. Claims 18-27, drawn to a method for measuring total organic carbon, classified in class 436, subclass 146.
- III. Claims 28-33, drawn to a method for measuring total organic carbon content, classified in class 436, subclass 106.

The inventions are distinct, each from the other because of the following reasons:

Inventions Group I and Group II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus can be used to measure total inorganic carbon (TIC).

Inventions Group II and Group II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions one is a method of measuring total inorganic carbon and the other is a method of measuring total inorganic carbon. When

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measuring the total inorganic carbon one can use a different oxidizing gas besides Nitrogen such as oxygen.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Michael de Angeli on December 10, 2003 a provisional election was made with traverse to prosecute the invention of Group II, claims 18-27. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-17 and 28-33 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims **18-27** are rejected under 35 U.S.C. 102(b) as being anticipated by Busch et al. (USPN 5,473,162).

Busch discloses a method of qualitatively and quantitatively analyzing infrared emission from excited molecules in the determination of total organic carbon (col. 15, line 41-col. 16, line 32). The method comprises using inductive coupled plasma oxidation (col. 58, lines 22-55); two electrodes are provided (col. 58, lines 25-31);

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measuring the TOC of water (col. 6, lines 36-38); admitting a quantity of carbon dioxide free gas to an interior volume (nitrogen; col. 60, lines 49-55); applying a high frequency (col. 60, lines 26-39) and a high voltage (col. 60, lines 6-25) signal across the electrodes; oxidizing the sample and converting it to carbon dioxide where it can then be measured (col. 61, lines 33-col. 62, line 32). Fourier transform infrared spectroscopic (col. 32, lines 51-52) techniques and non-dispersive infrared (col. 16, lines 1-4) techniques are among the devices that can be used to determine the carbon dioxide released. Other ways to measure the carbon dioxide released was by conductivity based techniques (col. 42, lines 24-27). The plasma used can also be low energy, non-equilibrium plasma (col. 58, lines 55-67).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel P Siefke whose telephone number is 703-306-0093. The examiner can normally be reached on M-F 7:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on 703-308-4037. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9311.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.


Jill Warden
Supervisory Patent Examiner
Technology Center 1700

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Sam P. Siefke

A handwritten signature in black ink, consisting of several overlapping loops and a horizontal stroke, positioned to the right of the name 'Sam P. Siefke'.

December 10, 2003